



SEQUENCE LISTING

<110> Genetic Applications LLC

<120> Peptide-Mediated Gene Transfer

<130> 020728.0101PTUS

<140> US 09/404,979

<141> 1999-09-22

<160> 56

<170> PatentIn version 3.3

<210> 1

<211> 5

<212> PRT

<213> Yeast

<400> 1

Lys Ile Pro Ile Lys

1 5

<210> 2

<211> 12

<212> PRT

<213> Yeast

<400> 2

Val Arg Ile Leu Glu Ser Trp Phe Ala Lys Asn Ile

1 5 10

<210> 3

<211> 7

<212> PRT

<213> SV40

<400> 3

Pro Lys Lys Lys Arg Lys Val

1 5

<210> 4

<211> 10

<212> PRT

<213> Influenza virus

<400> 4

Ala Ala Phe Glu Asp Leu Arg Val Arg Ser

1 5 10

<210> 5  
<211> 4  
<212> PRT  
<213> Yeast

<400> 5

Pro Arg Lys Arg  
1

<210> 6  
<211> 9  
<212> PRT  
<213> Polyoma virus

<400> 6

Val Ser Arg Lys Arg Pro Arg Pro Ala  
1 5

<210> 7  
<211> 6  
<212> PRT  
<213> SV40

<400> 7

Ala Pro Thr Lys Arg Lys  
1 5

<210> 8  
<211> 5  
<212> PRT  
<213> Adenovirus

<400> 8

Lys Arg Pro Arg Pro  
1 5

<210> 9  
<211> 7  
<212> PRT  
<213> SV40

<400> 9

Pro [Met] Asn Lys Lys Lys Arg Lys  
1 [5] 5

<210> 10  
<211> 17  
<212> PRT  
<213> Frog

<400> 10

Arg Pro Ala Ala Thr Lys Lys Ala Gly Gln Ala Lys Lys Lys Lys Leu  
1 5 10 15

Asp

<210> 11  
<211> 5  
<212> PRT  
<213> Rat

<400> 11

Lys Lys Lys Ile Lys  
1 5

<210> 12  
<211> 19  
<212> PRT  
<213> Monkey

<400> 12

Arg Val Thr Ile Arg Thr Val Arg Val Arg Arg Pro Pro Lys Gly Lys  
1 5 10 15

His Arg Lys

<210> 13  
<211> 6  
<212> PRT  
<213> Yeast

<400> 13

[Asp Gly Lys Lys Arg Ser] Asp Gly Lys Lys Arg Ser  
[1] [5] 1 5

<210> 14  
<211> [7] 6  
<212> PRT  
<213> Chicken

<400> 14

Lys Ala Lys Arg [Ser Lys Ala] Gln Arg  
1 [5] 5

<210> 15

<211> 5

<212> PRT

<213> Influenza

<400> 15

Asp Arg Leu Arg Arg  
1 5

<210> 16

<211> 6

<212> PRT

<213> Influenza

<400> 16

Pro Lys Gln Lys Arg Lys  
1 5

<210> 17

<211> 7

<212> PRT

<213> Frog

<400> 17

Val Arg Lys Lys Arg Lys Thr  
1 5

<210> 18

<211> 7

<212> PRT

<213> Frog

<400> 18

Ala Lys Lys Ser Lys Gln Glu  
1 5

<210> 19

<211> 9

<212> PRT

<213> Human

<400> 19

Pro Ala Ala Lys Arg Val Lys Leu Asp  
1 5

<210> 20  
<211> [10]11  
<212> PRT  
<213> Human

<400> 20

Arg Gln Arg Arg Asn Glu Leu Lys Arg Ser Phe  
1 5 10

<210> 21  
<211> 7  
<212> PRT  
<213> Human

<400> 21

Thr Lys Lys Arg Lys Leu Glu  
1 5

<210> 22  
<211> 7  
<212> PRT  
<213> HTLV-1

<400> 22

Pro Lys Thr Arg Arg Arg Pro  
1 5

<210> 23  
<211> 7  
<212> PRT  
<213> HTLV-1

<400> 23

Ser Gln Arg Lys Arg Pro Pro  
1 5

<210> 24  
<211> 11  
<212> PRT  
<213> Adenovirus

<400> 24

Arg Leu Pro Val Arg Arg Arg Arg Arg Val Pro  
1 5 10

<210> 25  
<211> 5  
<212> PRT  
<213> HIV-1

<400> 25

Gly Arg Lys Lys Arg  
1 5

<210> 26  
<211> 13  
<212> PRT  
<213> Frog

<400> 26

Val Arg Thr Thr Lys Gly Lys Arg Lys Arg Ile Asp Val  
1 5 10

<210> 27  
<211> 5  
<212> PRT  
<213> Rabbit

<400> 27

Arg Lys Phe Lys Lys  
1 5

<210> 28  
<211> 8  
<212> PRT  
<213> HIV-1

<400> 28

Arg Arg Asn Arg Arg Arg Arg Trp  
1 5

<210> 29  
<211> [15]16  
<212> PRT  
<213> Human

<400> 29

Pro Arg Glu Ser Gly Lys Lys Arg Lys Arg Lys Arg Leu Lys Pro Thr  
1 5 [5] 10 [10] 15 [15]

<210> 30  
<211> [5] 12  
<212> PRT  
<213> Mouse

<400> 30

[Lys Lys Lys Lys Lys] Ser Ala Leu Ile Lys Lys Lys Lys Lys Met Ala  
[1] [5] 1 5 10

Pro

<210> 31  
<211> 5  
<212> PRT  
<213> Adenovirus

<400> 31

Pro Pro Lys Lys Arg  
1 5

<210> 32  
<211> 6  
<212> PRT  
<213> Adenovirus

<400> 32

Pro Lys Lys Lys Lys Lys  
1 5

<210> 33  
<211> 9  
<212> PRT  
<213> Chicken

<400> 33

Ser Lys Arg Val Ala Lys Arg Lys Leu  
1 5

<210> 34  
<211> 8  
<212> PRT  
<213> Human

<400> 34

Pro Leu Leu Lys Lys Ile [Ile] Lys Gln  
1 5

<210> 35  
<211> 8  
<212> PRT  
<213> Human

<400> 35

Pro Pro Gln Lys Lys Ile Lys Ser  
1 5

<210> 36  
<211> 7  
<212> PRT  
<213> Human

<400> 36

Pro Gln Pro Lys Lys Lys Pro  
1 5

<210> 37  
<211> 18  
<212> PRT  
<213> Human

<400> 37

Phe Lys Arg Lys His Lys Lys Asp Ile Ser Gln Asn Lys Arg Ala Val  
1 5 10 15

Arg Arg

<210> 38  
<211> 9  
<212> PRT  
<213> Hepatitis B virus

<400> 38

Ser Lys Cys Leu Gly Trp Leu Trp Gly  
1 5

<210> 39  
<211> 8  
<212> PRT  
<213> Chicken

<400> 39



Gly Lys Arg Lys Asn Lys Pro Lys  
1 5

<210> 40  
<211> 7  
<212> PRT  
<213> Yeast

<400> 40

Lys Thr Arg Lys His Arg Gly  
1 5

<210> 41  
<211> 7  
<212> PRT  
<213> Yeast

<400> 41

Lys His Arg Lys His Pro Gly  
1 5

<210> 42  
<211> 18  
<212> PRT  
<213> Tobacco

<400> 42

Arg Arg Leu Ala Gln Asn Arg Glu Ala Ala Arg Lys Ser Arg Leu Arg  
1 5 10 15

Lys Lys

<210> 43  
<211> 16  
<212> PRT  
<213> Tobacco

<400> 43

Lys Lys Arg Ala Arg Leu Val Arg Asn Arg Glu Ser Ala Gln Leu Ser  
1 5 10 15

<210> 44  
<211> 5  
<212> PRT  
<213> Tobacco

<400> 44

Arg Gln Arg Lys Lys  
1 5

<210> 45

<211> 18

<212> PRT

<213> Maize

<400> 45

Arg Lys Arg Lys Glu Ser Asn Arg Glu Ser Ala Arg Arg Ser Arg Tyr  
1 5 10 15

Arg Lys

<210> 46

<211> [13]45

<212> PRT

<213> Polyvirus

<220>

<221> UNSPECIFIED

<222> (11)..(43)

<223> These 32 residues are unspecified in the reference document.

<400> 46

Lys Lys Asn Gln Lys His Lys Leu Lys Met Xaa Xaa Xaa Xaa Xaa Xaa  
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys Arg Lys  
35 40 45

<210> 47

<211> 18

<212> PRT

<213> Agrobacterium

<400> 47

Lys Arg Pro Arg Glu Asp Asp Asp Gly Glu Pro Ser Glu Arg Lys Arg  
1 5 10 15

Glu Arg

<210> 48  
<211> 17  
<212> PRT  
<213> Agrobacterium

<400> 48

Lys Leu Arg Pro Glu Asp Arg Tyr Ile Gln Thr Glu Lys Tyr Gly Arg  
1 5 10 15

Arg

<210> 49  
<211> 15  
<212> PRT  
<213> Agrobacterium

<400> 49

Lys Thr Lys Tyr Gly Ser Asp Thr Glu Ile Lys Leu [Leu] Lys Ser Lys  
1 5 10 15

<210> 50  
<211> 20  
<212> PRT  
<213> Maize

<400> 50

Met Glu Glu Ala Val Thr Met Ala Pro Ala Ala Val Ser Ser Ala Val  
1 5 10 15

Val Gly Asp Pro  
20

<210> 51  
<211> [15]16  
<212> PRT  
<213> Maize

<400> 51

Met Glu Tyr Asn Ala Ile Leu Arg Arg Lys Leu Glu Glu Asp Leu Glu  
1 5 [5] 10 [10] 15 [15]

<210> 52  
<211> 10

<212> PRT  
<213> Maize

<400> 52

Gly Asp Arg Arg Ala Ala Pro Ala Arg Pro  
1 5 10

<210> 53  
<211> 10  
<212> PRT  
<213> Maize

<400> 53

Met Ser Glu Arg Lys Arg Arg Glu Lys Leu  
1 5 10

<210> 54  
<211> 13  
<212> PRT  
<213> Maize

<400> 54

Met Ile Ser Glu Ala Leu Arg Lys Ala Ile Gly Lys Arg  
1 5 10

<210> 55  
<211> 16  
<212> PRT  
<213> Xenopus nucleoplasmin

<400> 55

Lys Arg Pro Ala Ala Thr Lys Lys Ala Gly Gln Ala Lys Lys Lys Lys  
1 5 10 15

<210> 56  
<211> 25  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic polypeptide with nuclear localization signal domain and  
DNA binding domain.

<400> 56

Pro Lys Lys Lys Arg Lys Val Ser Gly Gly Gly Gly Gly Lys Lys Lys  
1 5 10 15

Lys Lys Lys Lys Lys Lys Lys Lys Lys  
20 25